PCT Substitute Claims

1. Exhaust gas turbocharger for an internal combustion engine, with a turbine in the exhaust gas flow and a turbine driven compressor in the intake flow of the internal combustion engine, wherein the turbine (1) has a flow channel (3) with a radial flow entry section (3a) and a further flow entry section, and a flow ring (7) separating the flow entry cross-section (3a) and the further flow entry section and bordering the flow entry cross-section (3a), and wherein an adjustable ring of guide vanes (5) is provided in the radial flow entry cross-section (3a) for variably adjusting the flow entry cross-section (3a), and wherein the flow ring (7) is axially displaceable in the housing of the exhaust gas turbine (1) between a position contacting the ring of guide vanes (5) and a position exposing a gap between the flow ring (7) and the ring of guide vanes (5), thereby characterized, that axial relief boreholes are provided in the flow ring (7) extending between the axial faces of the flow ring for trimming of forces acting on the flow ring (7) when lying against the radial ring of guide vanes (5) in such a manner, that as a result of the reduction in static pressure in the ring of guide vanes (5) the flow ring (7) experiences a resulting pressure in the direction of the radial ring of guide vanes (5).

2. Exhaust gas turbocharger according to Claim 1, thereby characterized, that abutments or end stops (18, 19) are provided fixed relative to the housing for limiting the axial displaceability of the flow ring (7).

3. Exhaust gas turbocharger according to Claim 1 or 2, thereby characterized, that in the radial flow cross-section (3a) spacer sleeves (14) are provided, which determine the minimum axial breadth of the radial flow entry cross-section (3a).

4. Exhaust gas turbocharger according to one of Claims 1 through 3, thereby characterized, that a seal ring (11) is provided on the radial inner-lying side of the flow ring (7) for sealing against a housing fixed component (13).

5. Exhaust gas turbocharger according to one of Claims 1 through 4, thereby characterized, that the radial ring of guide vanes (5) includes adjustable guide vanes (6), which include cover discs (16, 17) on at least one axial end face.

6. Exhaust gas turbocharger according to one of Claims 1 through 6, thereby characterized, that adjustable guide vanes (6) of the radial ring of guide vanes (5) are mounted in the turbocharger housing via an axial shaft (15a).

7. Exhaust gas turbocharger according to one of Claims 1 through 7, thereby characterized, that adjustable guide vanes (6) of the radial ring of guide vanes (5) are mounted in the flow ring (7 via an axial shaft (15b)).